

Israel F. Charo
Application No.: 09/625,573
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PATENT

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19 ~~18.~~ The antibody of claim 2, wherein the specific binding of the antibody or binding fragment to the MCP-1 receptor polypeptide results in neutralization of activity of the MCP-1 polypeptide.

REMARKS

STATUS OF THE CLAIMS

Claims 1-18 will be pending after entry of this amendment.

New claims 17 and 18 are directed to non-cross reacting and neutralizing antibodies. These types of antibodies are well known in the art and support for them can be found in the instant application beginning on page 7, line 15, through page 8, line 3, in the numerous references cited and which have been incorporated by reference for all purposes. Additional support for incorporation by reference can be found at page 46, lines 21-24.

Applicants now request that the application now be examined on the merits.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,


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APPENDIX

PENDING CLAIMS

1. An antibody or binding fragment thereof which specifically binds MCP-1 receptor polypeptide, wherein the polypeptide is selected from the group consisting of:

- (a) a polypeptide comprising the amino acid sequence of SEQ ID NO: 2;
- (b) a polypeptide comprising the amino acid sequence of SEQ ID NO: 4; and
- (c) a polypeptide encoded by an isolated nucleic acid selected from the group

consisting of:

(i) DNA comprising residues 40 through 1161 of the DNA sequence of SEQ ID NO:1

(ii) DNA comprising residues 81 through 1160 of the DNA sequence of SEQ ID NO:3; and

(iii) DNA that, due to the degeneracy of the genetic code, encodes a polypeptide, encoded by any of the foregoing DNA sequences.

2. An antibody or antigen binding fragment thereof that specifically binds to a polypeptide comprising the amino acid sequence of an MCP-1R polypeptide which is

(a) a polypeptide having a sequence at least 90% identical to the sequence of MCP-1RA as shown in SEQ ID NO:2,

(b) a polypeptide having a sequence at least 90% identical to the sequence of MCP-1RB as shown in SEQ ID NO:4, or

(c) a fragment of a polypeptide according to (a) or (b) which binds specifically to MCP-1, wherein the sequence of the fragment is at least 90% identical to the corresponding portion of SEQ ID NO:2 or SEQ ID NO:4;

wherein the MCP-1R polypeptide binds specifically to MCP-1 but not to MIP-1 , MIP-1 , RANTES, or IL-8 under physiological conditions.

3. The antibody of claim 2, wherein the polypeptides (a) and (b) and the fragment (c) are at least 95% identical to SEQ ID NO:2, SEQ ID NO:4, and the corresponding portion of SEQ ID NO:2 or SEQ ID NO:4, respectively.
4. The antibody of claim 2, wherein the polypeptide comprises the amino acid sequence of an MCP-1R polypeptide having a sequence at least 90% identical to the sequence shown in SEQ ID NO:2 or SEQ ID NO:4.
5. The antibody of claim 3, wherein the polypeptide comprises the amino acid sequence of an MCP-1R polypeptide having a sequence at least 95% identical to the sequence shown in SEQ ID NO:2 or SEQ ID NO:4.
6. The antibody of claim 2, wherein the polypeptide comprises the amino acid sequence of SEQ ID NO:2 (FIG. 1) or SEQ ID NO:4 (FIG. 2).
7. The antibody of claim 2, wherein the polypeptide comprises a fragment of SEQ ID No:2 or SEQ ID No:4, wherein said fragment has the amino acid sequence of an extracellular domain of MCP-1RA, substantially as shown in FIGS. 4A and 4B.
8. The antibody of claim 2, wherein the antibody is labeled with a detectable label.
9. The antibody of claim 5, wherein the detectable label is a radioactive isotope.
10. The antibody of claim 2, wherein the antibody is a monoclonal antibody.
11. The antibody of claim 2, wherein antibody is a humanized antibody.
12. A cell line producing the monoclonal antibody of claim 7.
13. The cell line of claim 9 that is a eucaryotic cell line.

14. The cell line of claim 9 that is a procaryotic cell line.
15. A method of making the antibody of claim 2 comprising:
 - (a) immunizing an animal with the polypeptide of claim 2 under conditions to elicit an antibody response;
 - (b) isolating antibody-producing cells from the animal;
 - (c) fusing the antibody-producing cells with immortalized cells in culture to form monoclonal antibody-producing hybridoma cells;
 - (d) culturing the hybridoma cells; and
 - (e) isolating from the culture monoclonal antibodies which specifically bind to the polypeptide of claim 2.
16. A composition comprising an antibody according to claim 2, and a pharmaceutically acceptable carrier.
17. (New) The antibody of claim 2, wherein the antibody does not bind chemokine receptors other than MCP-1.
18. (New) The antibody of claim 2, wherein the specific binding of the antibody or binding fragment to the MCP-1 receptor polypeptide results in neutralization of activity of the MCP-1 polypeptide.